بنك الاسئلة

المتميز

أ/ محمود سعيد

ELMotamyez Questions Bank

Math

Final Revision

BY

MR. Mahmoud Elkhouly

6 الصف السادس

El.Motamyez.School

يمكنكم الحصول على المذكرات والاختبارات من خلال مسح رمز الـ QR Code
أو من خلال صفحة "المتميز - أ/ محمود سعيد".

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First term Questions Bank

المتميز

Question 01 | **Choose the correct answer**

1 Take away double the number m from 20 is written as ....

(a) $20 - m$ (b) $m - 20$ (c) $2m - 20$ (d) $20 - 2m$

2 The volume of the cube of edge length 4 cm is ....cm^3

(a) 12×4 (b) $4 + 4 + 4$ (c) 4^3 (d) 3^4

3 $3 \times 3 \times 3 \times 3 \times 3 = $ ....

(a) 3×5 (b) $3 + 3 + 3 + 3 + 3$ (c) 3^5 (d) 5^3

4 $3 + 3 + 3 + 3 + 3 = $ ....

(a) 3×5 (b) $3 \times 3 \times 3 \times 3 \times 3$ (c) 3^5 (d) 5^3

5 The value of the expression $5 m \div 3$ for $m = 6$ is ....

(a) 3 (b) 5 (c) 6 (d) 10

6 The first operation you preform in the expression $6 + (5^3 - 4) \div 2$ is ....

(a) add (b) Subtract (c) exponent (d) Divide

7 The first operation you preform in the expression $6 + 5^3 - (4 \div 2)$ is ....

(a) add (b) Subtract (c) exponent (d) Divide

9 Seven cubed added to six squared equals ....

(a) $7 \times 3 + 6 \times 2$ (b) $6^2 + 7^3$ (c) $6^2 - 7^3$ (d) $2^6 + 3^7$

10 Rozana saved x pounds . Mr Mahmoud Elkholy gave her 20 pounds , then she have ....pounds now .

(a) $X - 20$ (b) 45 (c) $X + 20$ (d) $20 x$

11 If $x + 5 = 8$, then $3x = $ ....

(a) 3 (b) 5 (c) 9 (d) 15

12 A number if added to 5 the result is 17 , then the number is ....

(a) 12 (b) 22 (c) 5 (d) 17

13 ....is a solution of the inequality $d > 15$

(a) 15 (b) 12 (c) 20 (d) All of them

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2

14 ....is a solution of the inequality d ≥ 15

(a) 15   (b) 16   (c) 20   (d) All of them

15 The mode of 7, 9 , 7, 8 , 7, 6, 7 and 10 is........

(a) 7   (b) 8   (c) 9   (d) 10

16 All the dot plots have the following characteristics except ....

(a) dot plot should have titles

(b) dot plots should have data graphed above a number line

(c) the number lines in dot plots should start at 0

(d) each individual piece of data can be seen on a dot plot and is represented by a dot.

17 A .... has two axes, horizontal and vertical.

(a) bar graph   (b) histogram   (c) double bar graph   (d) all of them

18 The question : what are the students favourite colours? Is a........... question

(a) statistical   (b) non-statistical   (c) numerical data   (d) All of them

19 The range = the greatest value.......... the smallest values.

(a) +   (b) –   (c) ÷   (d) ×

20 The best subset for the number 5 is ....

(a) Counting numbers   (b) Rational numbers   (c) Integers   (d) natural numbers

21 The best subset for the number 5.2 is ....

(a) Counting numbers   (b) Rational numbers   (c) Integers   (d) natural numbers

22 The Set of counting numbers .... The set of rational numbers

(a) Belong   (b) not belong   (c) subset   (d) Not subset

23 The Set of integers .... The set of natural numbers

(a) Belong   (b) not belong   (c) subset   (d) Not subset

24 –5 .... The set of rational numbers

(a) Belong   (b) not belong   (c) subset   (d) Not subset

25 r is 9 times p added to twice m in the equation is........

(a) $r = 9p + m$ (b) $r = 2m + 9p$ (c) $9r = p + 2m$ (d) $r + m = 9p$

26 In the equation : y = x + 1, if the output is 1, then the input is....

(a) 1   (b) 3   (c) 2   (d) 0

27 The order pair which satisfies the rule : y = 3x + 1 is.....

(a) (0, 0)   (b) (0, 4)   (c) (– 1, 1)   (d) (1, 4)

28 which of the following date set hasn't any outlier?

(a) 103,104,105,103,102,17   (b) 24,25,26,21,22,23,204

(c) 300, 309,302,303,305,306,308   (d) 4,211,212,213,214,215,1000

29 Youssef eat at least 3 oranges , then Youssef may eat ....oranges

(a) 3   (b) 5   (c) 12   (d) All of them

30 Layan has 25 pounds and Maya has more money than Layan , then Maya may has ....pounds .

(a) 25   (b) 20   (c) 100   (d) All of them

31 Zyad has 16 candies and Kareem has less candies than Zyad , then Kareem may has ....candies .

(a) 100   (b) 16   (c) 10   (d) All of them

32 Jana bought 6 SPIRO SPATHIS and Mohamed bought same number or more ,then Mohamed may bought .... SPIRO SPATHIS .

(a) 6   (b) 12   (c) 100   (d) All of them

33 All of the following are solutions of inequality x ≤ –8 except ....

(a) –8   (b) –10   (c) –7   (d) All of them

34 In the equation : 5x + 2 = y, the independent variable is ....

(a) 5   (b) 2   (c) x   (d) y

35 In the equation : b = $\frac{1}{2}$ f + 3 ,the dependent variable is ....

(a) 5   (b) 2   (c) f   (d) b

36 The GCF of any two different prime numbers is ....

(a) 0   (b) 1   (c) itself   (d) The smallest number

37 $\frac{3}{6} + \frac{1}{2}$ = ...

(a) $\frac{1}{2}$ (b) $\frac{3}{6}$ (c) 1   (d) $\frac{4}{8}$

38 Which of the following is an equation ?

(a) 3n + 7   (b) 7 times the number h   (c) 3 c = 3   (d) 6 e – 7

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4

(39) (2 , m) satisfies the rule y = 3x – 2 , then m = ...
- (a) 1
- (b) 2
- (c) 3
- (d) 4

(40) In the equation : y = 2x + 10 , the ordered pair (3 , n) satisfies the equation , then n = ...
- (a) 2
- (b) 10
- (c) 16
- (d) 30

(41) " Y is 6 times h added to 12 " in equation is ....
- (a) 12 = y + 6h
- (b) Y = 12 h + 6
- (c) H = 6y +12
- (d) Y = 6 h + 12

(42) (........ , ...) is called the origin .
- (a) (1 , 1)
- (b) (0 , 1)
- (c) (0 , 0)
- (d) (1 , 0)

(43) The greatest negative integer is ....
- (a) 1
- (b) –1
- (c) 0
- (d) –1000,000

(44) $\frac{3}{7} + \frac{2}{5}$ = ...
- (a) $\frac{5}{12}$
- (b) $\frac{29}{35}$
- (c) $\frac{1}{2}$
- (d) 1

(47) 3(5 + 4) = (3 x ....) + (........x 4)
- (a) 5,3
- (b) 5,4
- (c) 3,5
- (d) 3,4

(48) In the equation the : y = 2x + 3, the ordered pair (2, a) satisfies the equation then, a = ...
- (a) 5
- (b) 8
- (c) 7
- (d) 9

(49) The median of the value 4, 7, 8, 1 and 3 is ....
- (a) 3
- (b) 1
- (c) 4
- (d) 7

(50) The median of B + 1, B + 2, B + 3 is 10, then B =........
- (a) 1
- (b) 3
- (c) 2
- (d) 8

(51) If the upper quartile of the values : m + 1, m + 2, m + 3, m + 4 , k + 5 , where m is a positive integer is 16.5, then m = ...
- (a) 7
- (b) 8
- (c) 12
- (d) 10

(52) All the following are numerical data except..........
- (a) names
- (b) ages
- (c) length
- (d) temperatures

(53) The opposite of the number 15 is ....
- (a) 15
- (b) | 15 |
- (c) -15
- (d) | –15 |

(54) The additive inverse of | – 4 | is ....
- (a) 4
- (b) | 4 |
- (c) –4
- (d) | –4 |

55 In the equation : x = 5 y + 3, the dependent variable is..........

(a) 5y   (b) x   (c) y   (d) 3

56 In the equation : 4 a + 24 = b , the independent variable is..........

(a) a   (b) b   (c) 24   (d) 4a

57 "k equals the product of m and 4" in equation is..........

(a) k = 4 m   (b) k = 4 + m   (c) m = 4 k   (d) m = k + 4

58 which of the following is an equation?

(a) 20 x + 53.2   (b) 2 + m   (c) Y > 12   (d) 5 x = 20

59 "30 less than f equals y" in the equation is........

(a) 30 – f = y   (b) 30 + f = y   (c) F – 30 = y   (d) Y – 30 = f

60 If (4,..........) satisfies the rule $y = \frac{1}{2} x + 2$

(a) 4   (b) 10   (c) 6   (d) 2

61 $\frac{9}{2}$ .... The set of natural numbers

(a) Belong   (b) Does not belong   (c) subset   (d) Not subset

62 .... is categorical data.

(a) age   (b) phone number   (c) weight   (d) favourite TV show

63 .... is numerical data

(a) nationality   (b) Place of birth   (c) Exam degree   (d) name

64 The LCM of any two different prime numbers is ....

(a) 1   (b) The product of them   (c) The smallest number   (d) The greatest number

65 The dividend in 321 ÷ 12 = 26 R9 is ....

(a) 321   (b) 12   (c) 26   (d) 9

66 .... is the better measure of centre for data set with outlier values.

(a) Median   (b) Range   (c) Mode   (d) mean

67 Which of the following is nearest to zero ?

(a) 5   (b) –1   (c) –3   (d) 3

68 The best subset for the number 0 is ....

(a) Counting numbers   (b) Rational numbers   (c) Integers   (d) natural numbers

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6

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69 Which of the following is the greatest number ?

(a) –5.3 (b) –3.5 (c) 3.5 (d) 5.3

70 Which of the following is the smallest number ?

(a) –3.2 (b) –2.3 (c) –0.5 (d) –0.01

71 The best subset for the number –3 is ....

(a) Counting numbers (b) Rational numbers (c) Integers (d) natural numbers

72 The range can not be found using........

(a) dot plot (b) histogram (c) box plot (d) all of them

73 If the mean of 8, 6, x, 5 is 5, then x = ...

(a) 1 (b) 2 (c) 3 (d) 4

74 The mean of the values "54, 32, 30 ,4"is........

(a) 18 (b) 30 (c) 4 (d) 54

75 The LCM of 5 and 15 is ....

(a) 5 (b) 15 (c) 1 (d) 3

76 The GCF of 5 and 15 is ....

(a) 5 (b) 15 (c) 1 (d) 3

77 The common factor of all number is ....

(a) 0 (b) 1 (c) 2 (d) 100

78 If the cost of one ticket "h" and the total cost of 5 tickets "m" ,Then the independent variable is........

(a) m (b) h (c) 5 (d) 5 h

79 If the cost of one ticket "h" , then total cost of 5 tickets is ....

(a) m (b) h (c) 5 (d) 5 h

80 The order pair which satisfies the equation : $y = x + 2$

(a) (0, 2) (b) (1, 1) (c) (2, 1) (d) (1, 2)

81 Which of the following is numerical expression ?

(a) 3(6d + 5) (b) 8 + 6 (c) 2n – 9 (d) 4 – h

82 Which of the following is algebraic expression ?

(a) 4(6 + 5) (b) 4 – 1 + 2 (c) 20 ÷ 9 (d) 3h

83 The integer which comes just after –1 is ....

(a) 0 (b) 1 (c) –2 (d) –1

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84 The integer that is one less than 0 is ....

(a) 0   (b) 1   (c) -2   (d) -1

85 All counting numbers are also ....

(a) natural numbers   (b) Rational numbers   (c) Integers   (d) All of them

86 $|-10| >$ ....

(a) $|-9.99|$ (b) $|-90|$ (c) $|-100|$ (d) $|-15|$

87 $5(8 + ...) \times 7$ is a numerical expression .

(a) d   (b) 4f   (c) 5   (d) $19 + n$

88 $5(8 + ...) \times 7$ is a algebraic expression .

(a) 5   (b) 5m   (c) $18 + 2$ (d) 13

89 Adding 5 to third a number = ...

(a) $5 + 3x$ (b) $3x + 5$ (c) $\frac{1}{3}x - 5$ (d) $\frac{1}{3}x + 5$

90 The distance between -6 and its opposite on the number line is ....

(a) 6   (b) -6   (c) 12   (d) -12

91 $|-15| = m$, then m = ...

(a) -15   (b) 15   (c) Both a,b   (d) neither

92 $|-x| = 5$, then x = ...

(a) -5   (b) 5   (c) Both a,b   (d) neither

93 The number of terms in the expression $6d + 2 - 5n \div 4$ is .... terms

(a) 1   (b) 2   (c) 3   (d) 4

94 The like terms in the expression $2f + 2 - 2k - 8$ is ....

(a) 2f , 2k   (b) 2 , 8   (c) 2 , 2k   (d) 2f , 2

95 The constant in the expression $6d + 2 - 5n$ is ....

(a) 6   (b) d   (c) 5n   (d) 2

96 The coefficient in the expression $6d + 2$ is ....

(a) 6   (b) d   (c) 6d   (d) 2

97 The balance (mean) of the following date set 1 , 2 , 3 , 4 , 4 , 6 , 8 is.....

(a) 2   (b) 6   (c) 4   (d) 8

98 ....is another name for the mean .

(a) Median   (b) Range   (c) Mode   (d) Average

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Question 02 — Complete

1. 6 cubed = ...

2. 5 squared = ...

3. $5^2 + 6 - 2^3$ = ...

4. If the number of chicken owned is "t" and the number of eggs collected daily is "h", then the independent variable is ....

5. The lower quartile for the set of data : 5, 7, 9 ,10 ,12 ,15 , 20 is.....................

6. The graph shows gaps and cluster is ....

7. The graph shows distribution and spread is ....

8. The upper quartile of the values " 7, 1, 6 , 2 , 3 ,1 , 9 " is.............................

9. The median of the values "2, 7, 10 , 0 , 2 , 5 , 6 , 6 , 12 , 1" is.........................

10. If the upper quartile of the values : x + 14, x + 10, x +12, x + 15, x +16, x + 11, x + 14, x + 17 where x is a positive integer is 18.5, then x =.........................

11. 5x = 20 , then $\frac{1}{2}$ x = ...

12. 100 x = 0 , then 12 x = ...

13. 100 x = 100 , then 12 x = ...

14. $\frac{x}{5}$ = 6 , then x = ...

15. 3 n = 15 , then n = ...

16. X + 5.4 = 7.8 , then x = ...

17. 7 x = 28 , then $\frac{1}{2}$ x = ...

18. " F equals the product of m and 6 " as an equation is ....

19. The inequality that represent the negative integers is ....

20. we use.........................to see exactly how many times each individual values occurs.

21. The inequality that represent the positive integers is ....

22. The smallest natural number is ....

23. The inequality that represent the non–negative integers is ....

24. The inequality that represent the non–positive integers is ....

(25) The graph shows the 5-number summary is ....

(26) The graph shows the set of data in form of intervals is ....

(27) " Twice x added to 7 equals y " as an algebraic equation is ....

(28) " m = 5d – 5 " as an verbal is ....

(29) In the equation : $d = \dfrac{5}{9} n - 8$ the dependent variable is ....

(30) The verbal phrase for k + 10 = 12 is ....

(31) " 20 more than v equals m " in equation is ....

(32) The rule is " multiply by 8 " . if $x = \dfrac{1}{4}$, then y would be ....

(33) 4 more than s equals t in equation is ....

(34) The word phrase for the equation " h = 8 g " is ....

(35) The ordered pair which satisfies the rule: $y = x + 5$ is (1, ...)

(36) In the rule : $y = 4x$, if $x = 1.5$ then $y = \cdots$ ... ...

(37) The verbal phrase for : 2 m + 4 = 8 is ....

(38) $5 - 3\dfrac{2}{5}$ = ...

(39) " z equals the sum of adding 12 to the product of 4 and y" the equation is ....

(40) The dependent variable in the equation $a = 4 b + \dfrac{1}{2}$ is ....

(41) .... = maximum value – minimum value

(42) The maximum values for the set of values " 4,7,9,1,6" is ....

(43) The favourite colours of a number of pupils are .... data.

(44) If the mean of 5 values is 15, then the sum of these values is ....

(45) If the marks of 6 pupils in one of the tests are 29, 33,57,40,36 and 49, then the range for these marks is equal to ....

(46) The number of integers between –5 and –1 are ....

(47) The smallest counting number is ....

(48) The value of the expression $2x^2 - (2 \times 3 + 3^2)$ for x = 3 is ....

(49) If the price of one pen is 6 pounds , then the price of x pens is ....

(50) If the price of 10 pens is x pounds , then the price of one pen is ....

(51) In 5^4 the base is .... and the exponent is ....

52 The base is 8 and the exponent is 3 , then the exponential form of this is ....

53 In a square the side length is x then the perimeter is .... and the area is ....

54 .... are the values that lie away the other values.

55 ....is the middle values of the data set.

56 The additive inverse of –6 is ....

57 The additive inverse of 0 is ....

58 The LCM of 5 and 7 is ....

59 ....is the value that occurs most often .

60 If 50 is the greatest number of data set and the range = 10 ,then

The smallest number of this data set equals.............................

61 The number –2.5 in the form $\frac{a}{b}$ is ....

62 The opposite of the number 50 is ....

63 The integer which comes just before –9 is ....

64 The GCF of 5 and 7 is ....

65 The outlier of the following date set 91, 94, 93, 3, 90, 99 is.........................

66 The mode of the following set "3,4, 5,3,5,7,5,9,5,3" is.........................

67 The range of the set of values 6, 5, 9,4,11,3, 7 is.........................

68 If the range of a set of values is 12 and the smallest value is 8, then the largest values is.............................

69 If the sum of a group of values is 18 and the mean of these values is 3, then the number of these values is.............................

70 The smallest positive integer is ....

71 The smallest non–negative integer is ....

72 The greatest non–positive integer is ....

73 type of data is .... or ....

74 What is your favourite school subject? is........................... question.

75 The GCF of 8 and 9 is ....

76 The LCM of 8 and 9 is ....

77 864 ÷ 24 = ...

(78) ....is a multiple of all numbers .

(79) ....is a factor of all numbers .

(80) The number of terms in the expression $6h + 2d - 3x$ is ....terms

(81) The constant in the expression $5f + 2b + 3$ is ....

(82) $|-5| + 3 = $ ....

(83) The graph shows spread of the data in each quarter is.........................

(84) .... data is written in the form of numbers.

(85) The types of pens preferred by your class's students is a ....date.

(86) The median of the following date set "4, 5,7,7,8,9,9" is.............................

(87) $|-18| \times 0 = $ ....

(88) The algebraic expression of a number less than 5 is ....

(89) The algebraic expression of a number less 5 is ....

(90) The coefficient in the expression $-5d + 3$ is ....

(91) The product of 5 and a number t is ....

(92) Twice the difference between a number and 6 is ....

Question 03 — Answer the following questions

(1) Simplify the following :

1) $6^2 + 2(24 - 9) \div 3$

2) $8 - 4 \times 6 \div (5 - 3)^3$

....

(2) **Mohamed has x pounds . he bought a book for 60 pounds . write the algebraic expression of how much money with him now .**

....

(3) Represent $-2\frac{2}{5}$ on the number line .
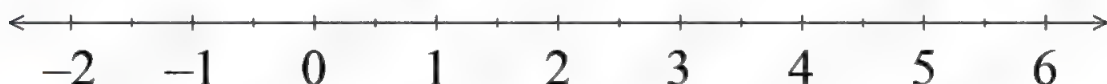
$$\longleftarrow \quad -3 \quad -2 \quad -1 \quad 0 \quad 1 \quad 2 \quad 3 \quad \longrightarrow$$

(4) Represent $5 \geq x$ on the number line in the set of integers .

$$\quad -2 \quad -1 \quad 0 \quad 1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6$$

5 Write an equation. Use the variables x and y ,where x is the independent variable .
Write the equation " add 1 and multiply by 2 " and substitute x by 1,2,3 and 4 to evaluate y .
then complete the table ,then represent the table on a graph .

Equation is : ....

X	1	2	3	4
y	....	....	....	....

6 Write a verbal phrase for each of the following :

a) $f + 10 = m$ b) $b = 5 - k$ c) $2n + 8 = a$

....

....

7 Complete the following table according to the equation : $y = 3x - 1$

X	1	3	5	7
y	....	....	....	....

8 Masa needed to earn at least 100 pounds daily to buy a mobile . find four possible amounts that Masa needed to earn ,then write the inequality that represented this situation .

....

9 Joudy paid 3,888 pounds to buy 24 candies . find the price of each box .

....

10 Find three rational numbers between 3.5 and 3.6

11 Write an equation, use the variables x and y, where x is the independent and using the rule " multiply by 8 ",then substitute $x = \frac{1}{2}$ to evaluate y .

....

12 Write each the verbal phrase as an algebraic equation :

(a) m equals twice n increased by 20

(b) y equals the product of eight and x added to 48

....

13 When m = 3 . solve $9 + (m^2 - 3) \div 2$

....

14 Rodina has 30 pounds , she will save 10 pounds daily . write the algebraic expression , then evaluate how much money will she have after 1 week ?

....

15 Write a verbal phrase for each of the following equation :

a) $y = 3x + 1$

b) $y + 5 = x$

c) $g = (h \div 3) + 12$

....

16 Write an equation, use the variables x and y where x is the independent variable ,then evaluate y

a) The equation " multiply by 6", substitute if x = 7

b) The equation " multiply by 2 and add 3", substitute if x = 2

....

17 By using the opposite dot plot find :
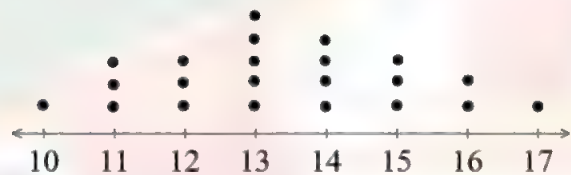
(a) The median

(b) The mode

(c) The range

....

18 If the number of goals registered by Al Zamalek in 6 matches are

3, 2, 6, 6, 1, 6

Calculated the mean , median and mode of the number of goals.

....

19 Rahma runs 3 km on Saturday, 5 km Sunday, 4 km Monday 4 km Tuesday and 4 km Friday

Find the mean distance covered by Rahma .

....

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14

20 from the opposite box plot, complete

(a) The maximum value = ...

(b) The minimum value = ...

(c) the median = ...

(d) the lower quarter = ...

(e) the upper quarter = ...


```
10  12  14  16  18  20  22  24
```
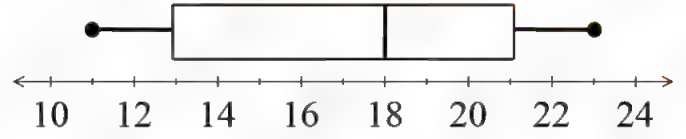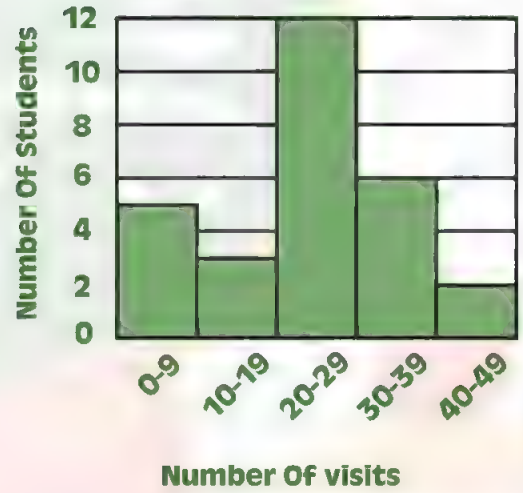
21 Solve each of the following equations :

(a) $\frac{x}{4} = 3$

(b) $12x - 5 = 7$

22 from the histogram shown at the right answer the following questions .

1. Which interval represents the most number of students? ....

2. Which interval has three students?
....

3. How many students went to a pool at least 30 times last summer?

....

4. How many students went to a pool less than ten times last summer?

....

Number of visits to a pool Last summer

Number Of visits

تم بحمد الله ،

بسم الله الرحمن الرحيم " إِنَّ الَّذِينَ آمَنُوا وَعَمِلُوا الصَّالِحَاتِ إِنَّا لَا نُضِيعُ أَجْرَ مَنْ أَحْسَنَ عَمَلًا " صدق الله العظيم

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الـ QR Code أو من خلال صفحة "المتميز - أ/ محمود سعيد ".
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15

المتميز

أ/ محمود سعيد

Model Answers

Math

Final Revision

BY

MR. Mahmoud Elkhouly

First term Questions Bank

المتميز

Question 01	**Choose the correct answer**

1 Take away double the number m from 20 is written as ....

   (a) $20 - m$ (b) $m - 20$ (c) $2m - 20$ (d) **$20 - 2m$**

2 The volume of the cube of edge length 4 cm is ....cm^3

   (a) 12×4 (b) $4 + 4 + 4$ (c) **4^3**   (d) 3^4

3 $3 \times 3 \times 3 \times 3 \times 3 = ...$

   (a) 3×5 (b) $3 + 3 + 3 + 3 + 3$ (c) **3^5**   (d) 5^3

4 $3 + 3 + 3 + 3 + 3 = ...$

   (a) **3×5**   (b) $3 \times 3 \times 3 \times 3 \times 3$ (c) 3^5 (d) 5^3

5 The value of the expression $5 m \div 3$ for $m = 6$ is ....

   (a) 3 (b) 5 (c) 6 (d) **10**

6 The first operation you preform in the expression $6 + (5^3 - 4) \div 2$ is ....

   (a) add   (b) Subtract   (c) **exponent**   (d) Divide

7 The first operation you preform in the expression $6 + 5^3 - (4 \div 2)$ is ....

   (a) add   (b) Subtract   (c) exponent   (d) **Divide**

9 Seven cubed added to six squared equals ....

   (a) $7 \times 3 + 6 \times 2$ (b) **$6^2 + 7^3$**   (c) $6^2 - 7^3$ (d) $2^6 + 3^7$

10 Rozana saved x pounds . Mr Mahmoud Elkholy gave her 20 pounds , then she have ....pounds now .

   (a) $X - 20$ (b) 45 (c) **$X + 20$**   (d) $20 x$

11 If $x + 5 = 8$, then $3x = ...$

   (a) 3 (b) 5 (c) **9**   (d) 15

12 A number if added to 5 the result is 17 , then the number is ....

   (a) **12**   (b) 22 (c) 5 (d) 17

13 ....is a solution of the inequality $d > 15$

   (a) 15 (b) 12 (c) **20**   (d) All of them

(14) ....is a solution of the inequality d ≥ 15

(a) 15 (b) 16 (c) 20 (d) **All of them**

(15) The mode of 7, 9 , 7, 8 , 7, 6, 7 and 10 is.........

(a) **7** (b) 8 (c) 9 (d) 10

(16) All the dot plots have the following characteristics except ....

(a) dot plot should have titles (b) dot plots should have data graphed above a number line

(c) **the number lines in dot plots should start at 0** (d) each individual piece of data can be seen on a dot plot and is represented by a dot.

(17) A .... has two axes, horizontal and vertical.

(a) bar graph (b) histogram (c) double bar graph (d) **all of them**

(18) The question : what are the students favourite colours? Is a........... question

(a) **statistical** (b) non-statistical (c) numerical data (d) All of them

(19) The range = the greatest value.......... the smallest values.

(a) + (b) **–** (c) ÷ (d) ×

(20) The best subset for the number 5 is ....

(a) **Counting numbers** (b) Rational numbers (c) Integers (d) natural numbers

(21) The best subset for the number 5.2 is ....

(a) Counting numbers (b) **Rational numbers** (c) Integers (d) natural numbers

(22) The Set of counting numbers .... The set of rational numbers

(a) Belong (b) not belong (c) **subset** (d) Not subset

(23) The Set of integers .... The set of natural numbers

(a) Belong (b) not belong (c) subset (d) **Not subset**

(24) –5 .... The set of rational numbers

(a) **Belong** (b) not belong (c) subset (d) Not subset

(25) r is 9 times p added to twice m in the equation is.........

(a) r = 9 p + m (b) **r = 2m + 9p** (c) 9 r = p + 2m (d) r + m = 9p

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18

26 In the equation : y = x + 1, if the output is 1, then the input is....

(a) 1   (b) 3   (c) 2   (d) <u>0</u>

27 The order pair which satisfies the rule : y = 3x + 1 is.....

(a) (0, 0)   (b) (0, 4)   (c) (– 1, 1)   (d) <u>(1, 4)</u>

28 which of the following date set hasn't any outlier?

(a) 103,104,105,103,102,17   (b) 24,25,26,21,22,23,204

(c) <u>300, 309,302,303,305,306,308</u>   (d) 4,211,212,213,214,215,1000

29 Youssef eat at least 3 oranges , then Youssef may eat ....oranges

(a) 3   (b) 5   (c) 12   (d) <u>All of them</u>

30 Layan has 25 pounds and Maya has more money than Layan , then Maya may has ....pounds .

(a) 25   (b) 20   (c) <u>100</u>   (d) All of them

31 Zyad has 16 candies and Kareem has less candies than Zyad , then Kareem may has ....candies .

(a) 100   (b) 16   (c) <u>10</u>   (d) All of them

32 Jana bought 6 SPIRO SPATHIS and Mohamed bought same number or more ,then Mohamed may bought .... SPIRO SPATHIS .

(a) 6   (b) 12   (c) 100   (d) <u>All of them</u>

33 All of the following are solutions of inequality x ≤ –8 except ....

(a) –8   (b) -10   (c) <u>-7</u>   (d) All of them

34 In the equation : 5x + 2 = y, the independent variable is ....

(a) 5   (b) 2   (c) <u>x</u>   (d) y

35 In the equation : $b = \frac{1}{2} f + 3$,the dependent variable is ....

(a) 5   (b) 2   (c) f   (d) <u>b</u>

36 The GCF of any two different prime numbers is ....

(a) 0   (b) <u>1</u>   (c) itself   (d) The smallest number

37 $\frac{3}{6} + \frac{1}{2} = $ ....

(a) $\frac{1}{2}$ (b) $\frac{3}{6}$ (c) <u>1</u>   (d) $\frac{4}{8}$

38 Which of the following is an equation ?

(a) 3n + 7   (b) 7 times the number h   (c) <u>3 c = 3</u>   (d) 6 e – 7

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19

(39) (2 , m) satisfies the rule y = 3x – 2 , then m = ...

(a) 1   (b) 2   (c) 3   (d) <u>4</u>

(40) In the equation : y = 2x + 10 , the ordered pair (3 , n) satisfies the equation , then n = ...

(a) 2   (b) 10   (c) <u>16</u>   (d) 30

(41) " Y is 6 times h added to 12 " in equation is ....

(a) 12 = y + 6h   (b) Y = 12 h + 6   (c) H = 6y +12   (d) <u>Y = 6 h + 12</u>

(42) (........ , ...) is called the origin .

(a) (1 , 1)   (b) (0 , 1)   (c) <u>(0 , 0)</u>   (d) (1 , 0)

(43) The greatest negative integer is ....

(a) 1   (b) <u>–1</u>   (c) 0   (d) –1000,000

(44) $\frac{3}{7} + \frac{2}{5} = $ ....

(a) $\frac{5}{12}$ (b) <u>$\frac{29}{35}$</u>   (c) $\frac{1}{2}$ (d) 1

(47) 3(5 + 4) = (3 x ....) + (........x 4)

(a) <u>5,3</u>   (b) 5,4   (c) 3,5   (d) 3,4

(48) In the equation the : y = 2x + 3, the ordered pair (2, a) satisfies the equation then, a = ...

(a) 5   (b) 8   (c) <u>7</u>   (d) 9

(49) The median of the value 4, 7, 8, 1 and 3 is ....

(a) 3   (b) 1   (c) <u>4</u>   (d) 7

(50) The median of B + 1, B + 2, B + 3 is 10, then B =........

(a) 1   (b) 3   (c) 2   (d) <u>8</u>

(51) If the upper quartile of the values : m + 1, m + 2, m + 3, m + 4 , k + 5 , where m is a positive integer is 16.5, then m = ...

(a) 7   (b) 8   (c) <u>12</u>   (d) 10

(52) All the following are numerical data except..........

(a) <u>names</u>   (b) ages   (c) length   (d) temperatures

(53) The opposite of the number 15 is ....

(a) 15   (b) | 15 | (c) <u>–15</u>   (d) | –15 |

(54) The additive inverse of | – 4 | is ....

(a) 4   (b) | 4 | (c) <u>–4</u>   (d) | –4 |

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20

55 In the equation : x = 5 y + 3, the dependent variable is.........

(a) 5y (b) <u>x</u> (c) y (d) 3

56 In the equation : 4 a + 24 = b , the independent variable is.........

(a) <u>a</u> (b) b (c) 24 (d) 4a

57 "k equals the product of m and 4" in equation is...........

(a) <u>k = 4 m</u> (b) k = 4 + m (c) m = 4 k (d) m = k + 4

58 which of the following is an equation?

(a) 20 x + 53.2 (b) 2 + m (c) Y > 12 (d) <u>5 x = 20</u>

59 "30 less than f equals y" in the equation is........

(a) 30 – f = y (b) 30 + f = y (c) <u>F – 30 = y</u> (d) Y – 30 = f

60 If (4,.........) satisfies the rule $y = \frac{1}{2} x + 2$

(a) <u>4</u> (b) 10 (c) 6 (d) 2

61 $\frac{9}{2}$ .... The set of natural numbers

(a) Belong (b) <u>Does not belong</u> (c) subset (d) Not subset

62 .... is categorical data.

(a) age (b) phone number (c) weight (d) <u>favourite TV show</u>

63 .... is numerical data

(a) nationality (b) Place of birth (c) <u>Exam degree</u> (d) name

64 The LCM of any two different prime numbers is ....

(a) 1 (b) The product of them (c) The smallest number (d) The greatest number

65 The dividend in 321 ÷ 12 = 26 R9 is ....

(a) <u>321</u> (b) 12 (c) 26 (d) 9

66 .... is the better measure of centre for data set with outlier values.

(a) <u>Median</u> (b) Range (c) Mode (d) mean

67 Which of the following is nearest to zero ?

(a) 5 (b) <u>–1</u> (c) –3 (d) 3

68 The best subset for the number 0 is ....

(a) Counting numbers (b) Rational numbers (c) Integers (d) natural numbers

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21

(69) Which of the following is the greatest number ?

(a) −5.3   (b) −3.5   (c) 3.5   (d) **5.3**

(70) Which of the following is the smallest number ?

(a) **−3.2**   (b) −2.3   (c) −0.5   (d) −0.01

(71) The best subset for the number −3 is ....

(a) Counting numbers   (b) Rational numbers   (c) **Integers**   (d) natural numbers

(72) The range can not be found using........

(a) dot plot   (b) **histogram**   (c) box plot   (d) all of them

(73) If the mean of 8, 6, x, 5 is 5, then x = ...

(a) **1**   (b) 2   (c) 3   (d) 4

(74) The mean of the values "54, 32, 30 ,4"is........

(a) 18   (b) **30**   (c) 4   (d) 54

(75) The LCM of 5 and 15 is ....

(a) 5   (b) **15**   (c) 1   (d) 3

(76) The GCF of 5 and 15 is ....

(a) **5**   (b) 15   (c) 1   (d) 3

(77) The common factor of all number is ....

(a) 0   (b) **1**   (c) 2   (d) 100

(78) If the cost of one ticket "h" and the total cost of 5 tickets "m" ,Then the independent variable is........

(a) m   (b) **h**   (c) 5   (d) 5 h

(79) If the cost of one ticket "h" , then total cost of 5 tickets is ....

(a) m   (b) h   (c) 5   (d) **5 h**

(80) The order pair which satisfies the equation : y = x + 2

(a) **(0, 2)**   (b) (1, 1)   (c) (2, 1)   (d) (1, 2)

(81) Which of the following is numerical expression ?

(a) **3(6d + 5)**   (b) **8 + 6**   (c) 2n − 9   (d) 4 − h

(82) Which of the following is algebraic expression ?

(a) 4(6 + 5)   (b) 4 − 1 + 2   (c) 20 ÷ 9   (d) **3h**

(83) The integer which comes just after −1 is ....

(a) **0**   (b) 1   (c) −2   (d) −1

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84 The integer that is one less than 0 is ....
- (a) 0
- (b) 1
- (c) -2
- (d) -1

85 All counting numbers are also ....
- (a) natural numbers
- (b) Rational numbers
- (c) Integers
- (d) All of them

86 $| -10 | > $ ....
- (a) $| - 9.99 |$
- (b) $| - 90 |$
- (c) $| - 100 |$
- (d) $| - 15 |$

87 $5 (8 + ...) \times 7$ is a numerical expression .
- (a) d
- (b) 4f
- (c) 5
- (d) $19 + n$

88 $5 (8 + ...) \times 7$ is a algebraic expression .
- (a) 5
- (b) 5m
- (c) $18 + 2$
- (d) 13

89 Adding 5 to third a number = ...
- (a) $5 + 3x$
- (b) $3x + 5$
- (c) $\frac{1}{3} x - 5$
- (d) $\frac{1}{3} x + 5$

90 The distance between –6 and its opposite on the number line is ....
- (a) 6
- (b) -6
- (c) 12
- (d) -12

91 $| -15 | = m$, then m = ...
- (a) -15
- (b) 15
- (c) Both a,b
- (d) neither

92 $| -x | = 5$, then x = ...
- (a) -5
- (b) 5
- (c) Both a,b
- (d) neither

93 The number of terms in the expression $6 d + 2 – 5 n \div 4$ is .... terms
- (a) 1
- (b) 2
- (c) 3
- (d) 4

94 The like terms in the expression $2 f + 2 – 2 k – 8$ is ....
- (a) 2f , 2k
- (b) 2 , 8
- (c) 2 , 2k
- (d) 2f , 2

95 The constant in the expression $6 d + 2 – 5 n$ is ....
- (a) 6
- (b) d
- (c) 5n
- (d) 2

96 The coefficient in the expression $6 d + 2$ is ....
- (a) 6
- (b) d
- (c) 6d
- (d) 2

97 The balance (mean) of the following date set 1 , 2 , 3 , 4 , 4 ,6 , 8 is.....
- (a) 2
- (b) 6
- (c) 4
- (d) 8

98 ....is another name for the mean .
- (a) Median
- (b) Range
- (c) Mode
- (d) Average

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أ. محمود سعيد

Question 02   Complete

1. 6 cubed = ...6^3..........

2. 5 squared = ...5^2..........

3. $5^2 + 6 - 2^3$ = ...23........

4. If the number of chicken owned is "t" and the number of eggs collected daily is "h" , then the independent variable is ....t.....

5. The lower quartile for the set of data : 5, 7, 9 ,10 ,12 ,15 , 20 is...7...

6. The graph shows gaps and cluster is ..... dot plot.....

7. The graph shows distribution and spread is .....box plot.....

8. The upper quartile of the values " 7, 1, 6 , 2 , 3 ,1 , 9 " is......7.....

9. The median of the values "2, 7, 10 , 0 , 2 , 5 , 6 , 6 , 12 , 1" is...5.5..

10. If the upper quartile of the values : x + 14, x + 10, x +12, x + 15, x +16, x + 11, x + 14, x + 17 where x is a positive integer is 18.5, then x =......3......

11. $5x = 20$, then $\frac{1}{2} x$ = ...2.......

12. $100\, x = 0$, then $12\, x$ = ...0........

13. $100\, x = 100$, then $12\, x$ = ...12........

14. $\frac{x}{5}$ = 6 , then x = ...30......

15. $3\, n = 15$, then n = ...5..........

16. $X + 5.4 = 7.8$, then x = ...3.4........

17. $7\, x = 28$, then $\frac{1}{2} x$ = ...2......

18. " F equals the product of m and 6 " as an equation is ......f = 6m ....

19. The inequality that represent the negative integers is ...... $x \leq -1$ ......

20. we use...... dot plot.........to see exactly how many times each individual values occurs.

21. The inequality that represent the positive integers is ...... $x \geq -1$ ....

22. The smallest natural number is ....0..........

23. The inequality that represent the non-negative integers is ...$x \geq 0$ ....

24. The inequality that represent the non-positive integers is ......$x \leq 0$ ....

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(25) The graph shows the 5-number summary is .....box plot.....

(26) The graph shows the set of data in form of intervals is .....histogram.....

(27) " Twice x added to 7 equals y " as an algebraic equation is ...$y = 7 + 2x$ ....

(28) " $m = 5d - 5$ " as an verbal is ...m equals 5 times d decreased by 5 ....

(29) In the equation : $d = \frac{5}{9}n - 8$ the dependent variable is ......d.........

(30) The verbal phrase for $k + 10 = 12$ is ....the sum of a number and 10 equals 12 ....

(31) " 20 more than v equals m " in equation is ....$v + 20 = m$............

(32) The rule is " multiply by 8 " . if $x = \frac{1}{4}$,then y would be ......2..........

(33) 4 more than s equals t in equation is ....$s + 4$ .....

(34) The word phrase for the equation " $h = 8 g$ " is ... h equals 8 times g...

(35) The ordered pair which satisfies the rule: $y = x + 5$ is (1, ..6...)

(36) In the rule : $y = 4x$, if $x = 1.5$ then $y = \cdots 6 \cdots$

(37) The verbal phrase for : $2 m + 4 = 8$ is ....double m increased by 4 equal 8 ......

(38) $5 - 3\frac{2}{5} = ...1\frac{3}{5}.......$

(39) " z equals the sum of adding 12 to the product of 4 and y" the equation is ....$z = 4y + 12$....

(40) The dependent variable in the equation $a = 4 b + \frac{1}{2}$ is.....a.....

(41) ......range..........= maximum value – minimum value

(42) The maximum values for the set of values " 4,7,9,1,6" is..9...

(43) The favourite colours of a number of pupils are..... categorical...... data.

(44) If the mean of 5 values is 15, then the sum of these values is....75.....

(45) If the marks of 6 pupils in one of the tests are 29, 33,57,40,36 and 49, then the range for these marks is equal to....28....

(46) The number of integers between –5 and –1 are ......3......

(47) The smallest counting number is ....1..........

(48) The value of the expression $2x^2 - (2 \times 3 + 3^2)$ for x = 3 is ....3..........

(49) If the price of one pen is 6 pounds , then the price of x pens is ......6x..........

(50) If the price of 10 pens is x pounds , then the price of one pen is ......$x \div 10$..........

(51) In 5^4 the base is ......5..........and the exponent is ......4......

(52) The base is 8 and the exponent is 3 , then the exponential form of this is ......8^3........

(53) In a square the side length is x then the perimeter is ......$4x$.... and the area is ...x^2....

(54) .....outlier..... are the values that lie away the other values.

(55) ....median.....is the middle values of the data set.

(56) The additive inverse of –6 is ......6........

(57) The additive inverse of 0 is ......0........

(58) The LCM of 5 and 7 is ......35.............

(59) ......mode......is the value that occurs most often .

(60) If 50 is the greatest number of data set and the range = 10 ,then The smallest number of this data set equals.....40......

(61) The number –2.5 in the form $\frac{a}{b}$ is .... $-\frac{25}{10}$ ....

(62) The opposite of the number 50 is ......–50........

(63) The integer which comes just before –9 is ......–10......

(64) The GCF of 5 and 7 is ......1.............

(65) The outlier of the following date set 91, 94, 93, 3, 90, 99 is....3....

(66) The mode of the following set "3,4, 5,3,5,7,5,9,5,3" is...3.....

(67) The range of the set of values 6, 5, 9,4,11,3, 7 is......8....

(68) If the range of a set of values is 12 and the smallest value is 8, then the largest values is.....20.....

(69) If the sum of a group of values is 18 and the mean of these values is 3, then the number of these values is....6......

(70) The smallest positive integer is ....1...........

(71) The smallest non-negative integer is ....0...........

(72) The greatest non-positive integer is ....0...........

(73) type of data is .... categorical...... or .... numerical......

(74) What is your favourite school subject? is a..... non-statistical.... question.

(75) The GCF of 8 and 9 is ......1.............

(76) The LCM of 8 and 9 is ......72............

(77) 864 ÷ 24 = ...36.......

(78) ......0........is a multiple of all numbers .

(79) ......1........is a factor of all numbers .

(80) The number of terms in the expression $6h + 2d - 3x$ is ......3........terms

(81) The constant in the expression $5f + 2b + 3$ is ......3........

(82) $|-5| + 3 = $ ......8.......

(83) The graph shows spread of the data in each quarter is... box plot....

(84) .... numerical........ data is written in the form of numbers.

(85) The types of pens preferred by your class's students is a .....categorical.... date.

(86) The median of the following date set "4, 5,7,7,8,9,9" is...7....

(87) $|-18| \times 0 = $ ....0........

(88) The algebraic expression of a number less than 5 is ....5-x......

(89) The algebraic expression of a number less 5 is ....x-5......

(90) The coefficient in the expression $-5d + 3$ is ......-5........

(91) The product of 5 and a number t is ......5t...........

(92) Twice the difference between a number and 6 is ...2(x-6)..........

Question 03 — Answer the following questions

(1) Simplify the following :

1) $6^2 + 2(24 - 9) \div 3$

2) $8 - 4 \times 6 \div (5 - 3)^3$

1) 46

2) 5

(2) **Mohamed has x pounds . he bought a book for 60 pounds . write the algebraic expression of how much money with him now .**

X – 60

(3) **Represent** $-2\frac{2}{5}$ **on the number line .**
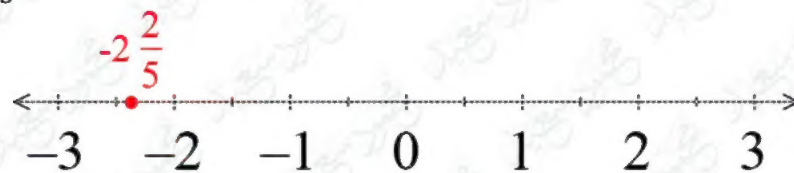
(4) Represent $5 \geq x$ on the number line in the set of integers .

⑤ Write an equation. Use the variables x and y ,where x is the independent variable .
Write the equation " add 1 and multiply by 2 " and substitute x by 1,2,3 and 4 to evaluate y .
then complete the table ,then represent the table on a graph .
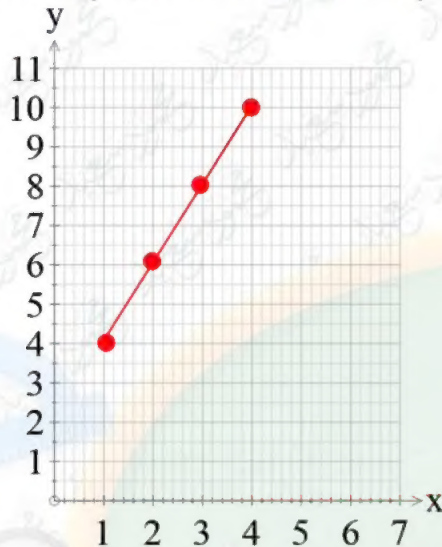
Equation is : .... $(x+1) \times 2$ ....

X	1	2	3	4
y	4	6	8	10

⑥ Write a verbal phrase for each of the following :
a) $f + 10 = m$ b) $b = 5 - k$ c) $2n + 8 = a$
a) 10 more than f equals m
b) b equals 5 decreased by k
c) the sum of twice n and 8 equals a

⑦ Complete the following table according to the equation : $y = 3x - 1$

X	1	3	5	7
y	2	8	14	20

⑧ Masa needed to earn at least 100 pounds daily to buy a mobile . find four possible
amounts that Masa needed to earn ,then write the inequality that represented this
situation .
100 , 150 , 200 , 300   - $x \geq 100$

⑨ Joudy paid 3,888 pounds to buy 24 candies . find the price of each box .
$3,888 \div 24 = 162$ pounds

⑩ Find three rational numbers between 3.5 and 3.6
3.51 , 3.52 , 3.53

⑪ Write an equation, use the variables x and y, where x is the independent
and using the rule " multiply by 8 ",then substitute $x = \frac{1}{2}$ to evaluate y .

The equation is $y = 8x$, then $y = \frac{1}{2} \times 8 = 4$

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28

12 Write each the verbal phrase as an algebraic equation :

(a) m equals twice n increased by 20

(b) y equals the product of eight and x added to 48

a) m = 2n + 20

b) y = y = 48 + 8 x

13 When m = 3 . solve $9 + (m^2 - 3) \div 2$

12

14 Rodina has 30 pounds , she will save 10 pounds daily . write the algebraic expression , then evaluate how much money will she have after 1 week ?

The expression is 30 + 10 d

Money with her = 30 + 10 x 7 = 100 pounds

15 Write a verbal phrase for each of the following equation :

a) y = 3 x +1

b) y + 5 = x

c) g = (h ÷3) +12

a) y equals 3 times x increased by 1

b) the sum of y and 5 is x

c) g equals the sum of h divided by 3 and 12

16 Write an equation, use the variables x and y where x is the independent variable ,then evaluate y

a) The equation " multiply by 6", substitute if x = 7

b) The equation " multiply by 2 and add 3", substitute if x = 2

a) y = 6x , then y= 6 x 7 = 42

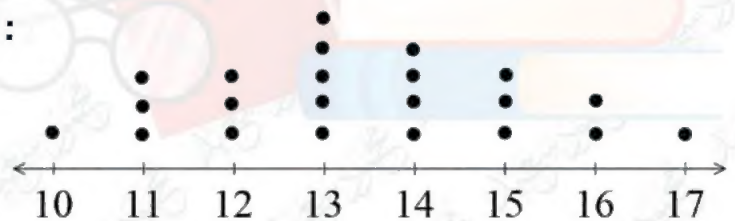b) y = 2x + 3 , then y = 2 x 2 + 3 = 7

17 By using the opposite dot plot find :

(a) The median

(b) The mode

(c) The range

Median= 13 , mode = 13 , range = 7

18 If the number of goals registered by Al Zamalek in 6 matches are

3, 2, 6, 6, 1, 6

Calculated the mean , median and mode of the number of goals.

Mean = 24 ÷ 6 = 4

Median = 9 ÷ 2 = 4.5

Mode = 6

أ. محمود سعيد

19 Rahma runs 3 km on Saturday, 5 km Sunday, 4 km Monday 4 km Tuesday and 4 km Friday
Find the mean distance covered by Rahma .

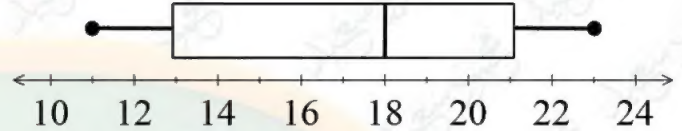**Mean = 20 ÷ 5 = 4**

20 <u>from the opposite box plot, complete</u>
(a) The maximum value = ...**23**.....
(b) The minimum value = ...**11**.....
(c) the median = ...**18**......
(d) the lower quarter = ...**13**....
(e) the upper quarter = ...**21**.....

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10  12  14  16  18  20  22  24
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21 Solve each of the following equations :
(a) $\frac{x}{4} = 3$
(b) $12 x - 5 = 7$

a) x = 12
b) x = 1

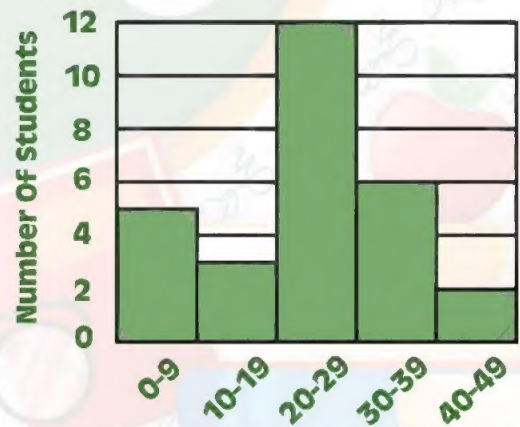**22** from the histogram shown at the right answer the following questions .

Number of visits to a pool Last summer

1. Which interval represents the most number of students? ....**20-29**....

2. Which interval has three students? ....**10-19**.....

3. How many students went to a pool at least 30 times last summer? ....**8**.....

4. How many students went to a pool less than ten times last summer? ....**5**....

Number Of Students

```
12
10
8
6
4
2
0
   0-9  10-19  20-29  30-39  40-49
```

Number Of visits

تم بحمد الله ،

بسم الله الرحمن الرحيم " إِنَّ الَّذِينَ آمَنُوا وَعَمِلُوا الصَّالِحَاتِ إِنَّا لَا نُضِيعُ أَجْرَ مَنْ أَحْسَنَ عَمَلًا " صدق الله العظيم